Wexiödisk

DISHWASHER
WD-4S

(translation of the original documentation)

Installation and user manual

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1. General information 1

1.1 Symbols used in this manual 2
1.2 Symbols on the dishwasher 3
1.2.1 Machine marking 3
1.3 Checking that the dishwasher and the manual correspond 3
1.4 EC Declaration of Conformity 4

2. Safety instructions 6

2.1 General information 6
2.2 Transport 6
2.3 Installation 7
2.4 Detergent and drying agent 7
2.5 Operation 8
2.5.1 Hot water 8
2.5.2 Risk of crushing 8
2.5.3 Risk of slipping 8
2.6 Cleaning the dishwasher 9
2.6.1 Pressure washing 9
2.7 Washing the floor 9
2.8 Repairing and servicing the dishwasher 9
2.8.1 Instructions if the machine is not working 9
2.9 Recycling the machine 9

3. Installation 10

3.1 General information 10
3.2 Requirements for the installation site 10
3.2.1 Lighting 10
3.2.2 Ventilation 10
3.2.3 Drain/waste pipe 10
3.2.4 Space for servicing 10
3.3 Transport and storage 11
3.3.1 Unpacking 11
3.3.2 Recycling 11
3.4 Installation 12
3.4.1 Preparing for the installation 12
3.4.2 Installation 12
3.4.3 Connections 15
3.4.4 Equipment package for the machine 18
3.5 Trial operation 20
3.5.1 Start-up schedule 20
3.6 Technical documentation 22

4. Using the dishwasher 23

4.1 Machine layout 24

4.1.1 Machine layout 24
4.1.2 Preparations before filling 25
4.1.3 Filling the machine 26

4.2 Using the machine 28

4.2.1 Symbols on the machine's display 28
4.2.2 Positioning of items in baskets 29
4.2.3 Selecting a programme 31
4.2.4 Changing washing temperature and washing time (by trained personnel) 31
4.2.5 Washing 32
4.2.6 Changing the water 34

4.3 After use – cleaning 35

4.3.1 Emptying with internal cleaning 35
4.3.2 Cleaning each week 37
4.3.3 Cleaning the exterior 37
4.3.4 Incorrect cleaning methods 38
4.3.5 Operating problems 39

5. Technical specifications 43

1. General information

Read the instructions in this manual carefully as they contain important information regarding the correct, effective and safe installation, use and servicing of the dishwasher.

The dishwasher is intended to be used for washing items that are found in the general catering and restaurant trade.

The dishwasher can be equipped with a number of different options. Certain options may be standard in a number of countries. Check what your machine is equipped with.

The capacity requirements of the machine can be found in the TECHNICAL DATA chapter.

Before the dishwasher is started up and used, the following points should be observed:

- The SAFETY INSTRUCTIONS chapter must be studied carefully before commissioning the machine.
- Installation of the machine must be performed in accordance with the requirements and instructions indicated in the INSTALLATION and TECHNICAL SPECIFICATIONS chapters.
- Any personnel who may at some point use the machine must be trained in its operation, use and care.
- The dishwasher should not be used by anyone suffering from a physical or mental illness.
- A close eye should be kept on any children in the vicinity of the machine to ensure they do not tamper with it.
- All cover plates must be installed during use.

The machine's display indicates what the machine is doing. The machine's various temperatures and any alarms are also shown.

The electronics in the machine are RoHS compatible.

Keep this manual in a safe place so that it can and should be used by other operators of the dishwasher.

1.1 Symbols used in this manual

This symbol warns of situations where a safety risk may arise. The instructions given should be followed in order to prevent injury.

This symbol on a machine part warns of electrical equipment. The machine must be entirely non-live during service, turn off the power at the power switch and if required, the switch should be locked to prevent unintentional operation. The machine's electronics are sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics at all times.

This symbol explains the correct way to perform a task in order to prevent poor results, damage to the dishwasher or hazardous situations.

This symbol identifies recommendations and hints to help you get the best results when washing, to increase the machine's lifespan and reduce the risk of emergency shut down.

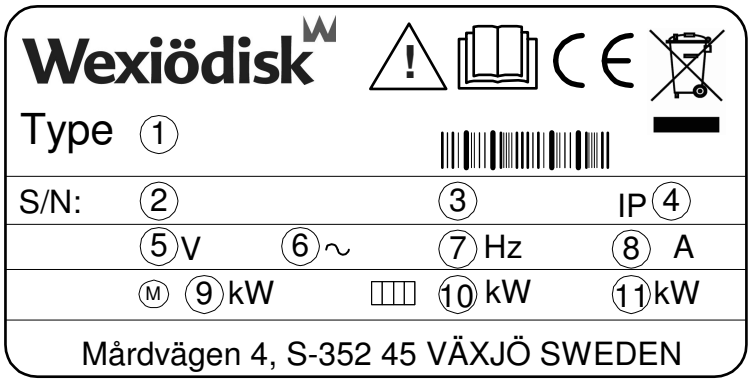
This symbol explains the importance of careful and regular cleaning of the machine to meet hygiene requirements.

1.2 Symbols on the dishwasher

This symbol on a machine part warns of electrical equipment. The machine must be entirely non-live during service, turn off the power at the power switch and if required, the switch should be locked to prevent unintentional operation. The component may only be removed by a qualified electrician. The machine's electronics are sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics at all times.

1.2.1 Machine marking

The machine has two rating plates, one of which is placed at the bottom of one side of the machine and the other in the electrical cabinet. The technical data on the plates can also be found on the machine's wiring diagram. The various rating fields show:



marks_15

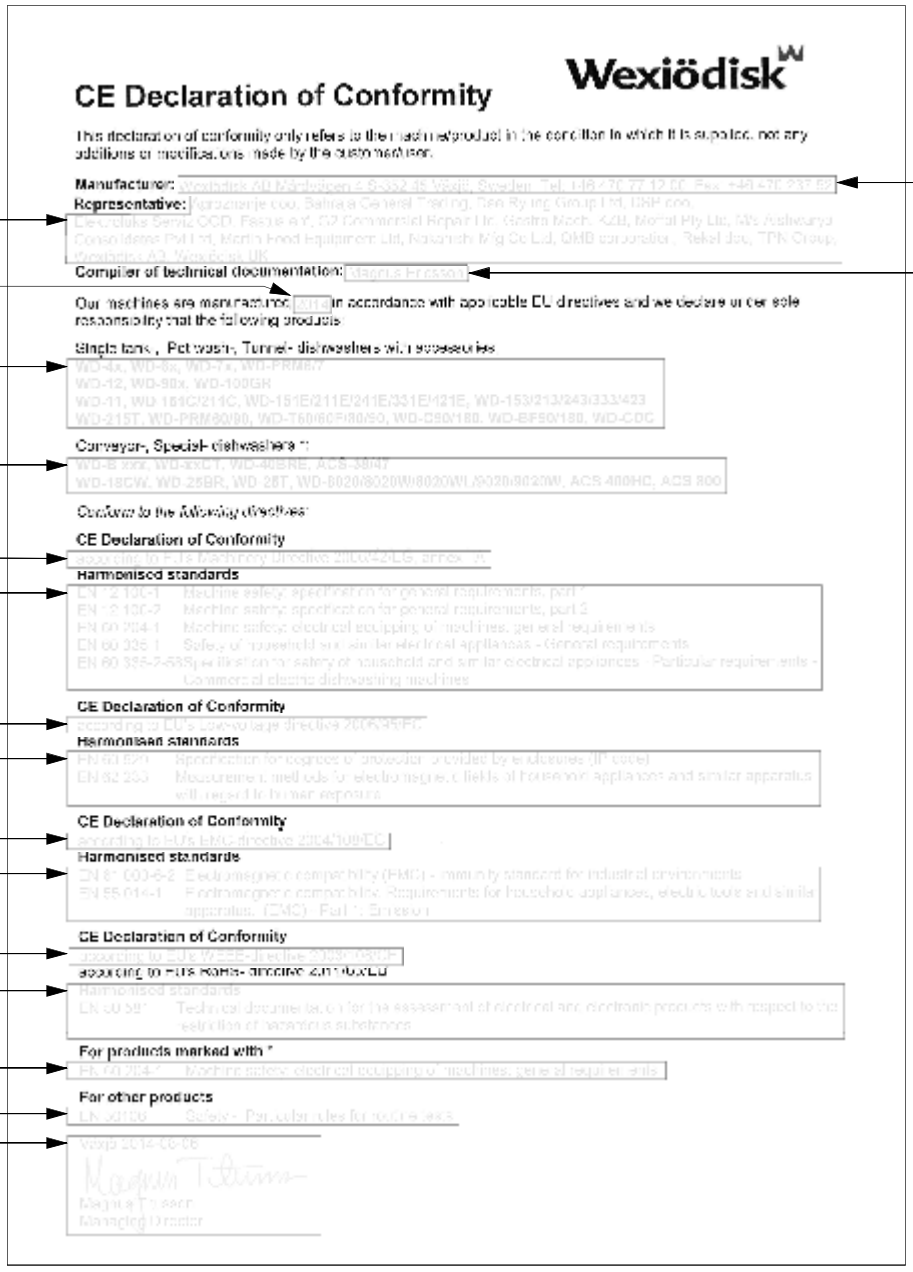
1. Machine type
2. Machine serial number
3. Year of manufacture
4. Enclosure protection class
5. Voltage
6. Number of phases with or without neutral
7. Frequency
8. Main fuse
9. Motor output
10. Electrical heating output
11. Max. output

1.3 Checking that the dishwasher and the manual correspond

Check that the type description on the rating plate corresponds with the type description on the front of the manual. If manuals are missing, it is possible to order new ones from the manufacturer or the local distributor. When ordering new manuals, it is important to quote the machine number found on the rating plate.

1.4 EC Declaration of Conformity

A so-called EC Declaration of Conformity is provided on delivery of the product.



CE_14

1. Contact details of the manufacturer (Wexiödisk AB).
2. Representatives of Wexiödisk AB.
3. Person responsible for the product's documentation.
4. Year of manufacture of the product.
5. Model designation of the dishwashers and accessories the document applies to, sorted by type.
6. The EU directives for which the dishwashers and accessories meet all applicable provisions.
7. Harmonised standards for the directives specified, and which the dishwashers and accessories meet, wherever relevant.
8. Other standards which the dishwashers and accessories meet wherever relevant.
9. Place and date with signature and name (in block letters) of the person responsible for ensuring compliance with legislation and regulations.

2. Safety instructions

2.1 General information

The machine is CE marked, which means that it complies with the requirements of the EU machinery directive with regard to product safety. Product safety means that the design of the machine will prevent personal injury or damage to property.

Modifying the equipment without the approval of the manufacturer will invalidate the manufacturer's product liability.

To further improve safety during installation, operation and servicing, the operator and the personnel responsible for installing and servicing the machine should read the safety instructions carefully.

Switch off the dishwasher immediately and make sure it is non-live in the event of faults, damage or malfunctions, e.g. if the glass on the panel has broken. The regular checks described in the manual must be carried out in accordance with the instructions. The machine must only be serviced by trained personnel. Use original spare parts. Warranty repairs must be performed by an authorised company. Contact an authorised service company to draw up a programme of preventative care and maintenance. For authorised service companies, please see www.wexiodisk.com or contact Wexiödisk AB. Dangerous situations may arise if the instructions above are not followed.

Before the machine enters service, ensure that the personnel are given the necessary training in handling and looking after the machine.

2.2 Transport

Handle the machine with care during unloading and transport; there is a risk of it tipping over. Never lift or move the machine without using the wooden packaging to support the stand.

2.3 Installation

The electrical cabinet may only be opened by a qualified electrician. The machine must be entirely non-live during service, turn off the power at the power switch and if required, the switch should be locked to prevent unintentional operation. The machine's electronics are sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics at all times.

Water connections should only be undertaken by qualified personnel.

Water pipes must be connected in a way that complies with the regulations of the local water supply company. Check that the water connections do not leak before starting the machine.

Make sure that the mains voltage is the same as that indicated on the machine's rating plate. The machine must be connected to a lockable power switch.

2.4 Detergent and drying agent

Only detergent and drying agent intended for industrial dishwashers may be used. Washing-up liquid must not be used in the machine or for pre-treating items (soaking, pre-washing, etc.). Contact your detergent supplier regarding the choice of a suitable detergent.

Be aware of the risks involved in handling detergents and drying agents. Protective gloves and safety glasses should be used when handling, and an eyebath should be within easy access. Read the warning text on the detergent and drying agent containers as well as the detergent supplier's instructions.

2.5 Operation

- If the machine will not be used for a longer period, the power to the machine should be turned off using the power switch, the water supply turned off and the door should be left ajar.
- There is a slight risk of the machine tipping if the items are not stacked properly.
- Avoid contact with the back of the machine as it becomes hot during operation.

2.5.1 Hot water

The temperature of the washing and rinsing water is 60°C and 85°C. Do not open the door until the rinsing phase has finished. The steam that comes out of the machine after the wash has been completed is hot.

2.5.2 Risk of crushing

Take care when the door is closed to avoid crushing injuries.

2.5.3 Risk of slipping

The floor should be kept dry to eliminate any risk of slipping. Mop up any water and leftover food that has been spilt.

2.6 Cleaning the dishwasher

The water in the tank has a temperature of approximately 60°C and contains detergent. Be careful when draining and cleaning the wash tank. Wear protective gloves and safety glasses and have an eyebath within easy access.

2.6.1 Pressure washing

The machine must not be cleaned with a pressure washer, either inside or out. Pressure washing may seriously damage the machine and invalidate the manufacturer's/supplier's warranty.

In order to satisfy current requirements, electrical components of approved IP classes are used. No enclosure class is designed to withstand high pressure.

2.7 Washing the floor

If floors are cleaned using high-pressure equipment, water may splash up under the machine and damage the components. These have not been designed to withstand being washed with water. Never use a pressure washer to clean the floor within 1 metre of the machine. Problems with splashing can also occur when using ordinary hoses.

2.8 Repairing and servicing the dishwasher

Make sure the machine is non-live before removing the cover plate. Turn off the power using the power switch, if required, the switch must be locked to prevent unintentional operation. Avoid touching hot pipes and the booster heater.

2.8.1 Instructions if the machine is not working

Check to ensure the following points:

- Are there any error messages on the display?
- Has the dishwasher been used according to the instructions?
- Are all the removable parts in their correct place?
- Is the main switch in the "ON" position?
- Are the fuses in the electrical cabinet still intact? Ask service personnel to check the fuses.

If none of the above solves the problem, authorised service personnel must be called to check the machine. For authorised service companies, please see www.wexiodisk.com or contact Wexiödisk AB.

2.9 Recycling the machine

When the dishwasher has reached the end of its service life, it must be recycled in accordance with current regulations. Contact companies that specialise in recycling.

3. Installation

3.1 General information

The machine must only be installed by trained personnel.

The dishwasher can be equipped with a number of different options. Certain options may be standard in a number of countries. Check what your machine is equipped with.

Read these instructions carefully, as they contain important information regarding the correct installation method.

The instructions should be used together with the machine's wiring diagram.

The machine is CE marked. The CE mark is only valid for an unmodified machine. Any damage to the machine arising from failure to follow the instructions will invalidate the supplier's warranty and product liability.

3.2 Requirements for the installation site

3.2.1 Lighting

In order to ensure the best possible working conditions during installation, operation, servicing and maintenance, make sure that the machine is installed in a well-lit room.

3.2.2 Ventilation

The machine produces heat and steam when in operation. In order to ensure the best possible working conditions, a certain air change rate is required in the dishwashing room. The ventilation requirements for the room are to be dimensioned on the basis of the applicable standards.

3.2.3 Drain/waste pipe

There must be a waste pipe with an effective trap for the machine's waste water and for water used for cleaning. The floor drain capacity requirements can be found in the TECHNICAL SPECIFICATIONS chapter.

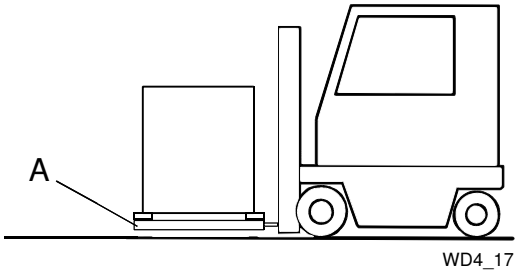
3.2.4 Space for servicing

A 1-metre area should be left clear in front of the machine for servicing purposes.

3.3 Transport and storage

Always transport the machine in an upright position.

Take care during transport, as there is a risk of tipping. NOTE: The machine must not be transported without a pallet or other support, otherwise the machine may become damaged. When transporting the machine without a normal wooden pallet, always check that none of the components underneath the machine can be damaged.



A=Wooden pallet

If the machine is not being installed immediately, it must be stored in a frost-free area where the air is dry.

3.3.1 Unpacking

Check that all parts have been delivered by comparing them with the delivery note.

Remove the packing material. Inspect the machine for any transport damage.

3.3.2 Recycling

Packaging must be sent for destruction or recycling in accordance with local regulations.

The machine is manufactured from stainless steel plate, among other things, and also contains electronic components. When it is time to scrap the machine, it must be handed over for recycling in accordance with local regulations.

3.4 Installation

3.4.1 Preparing for the installation

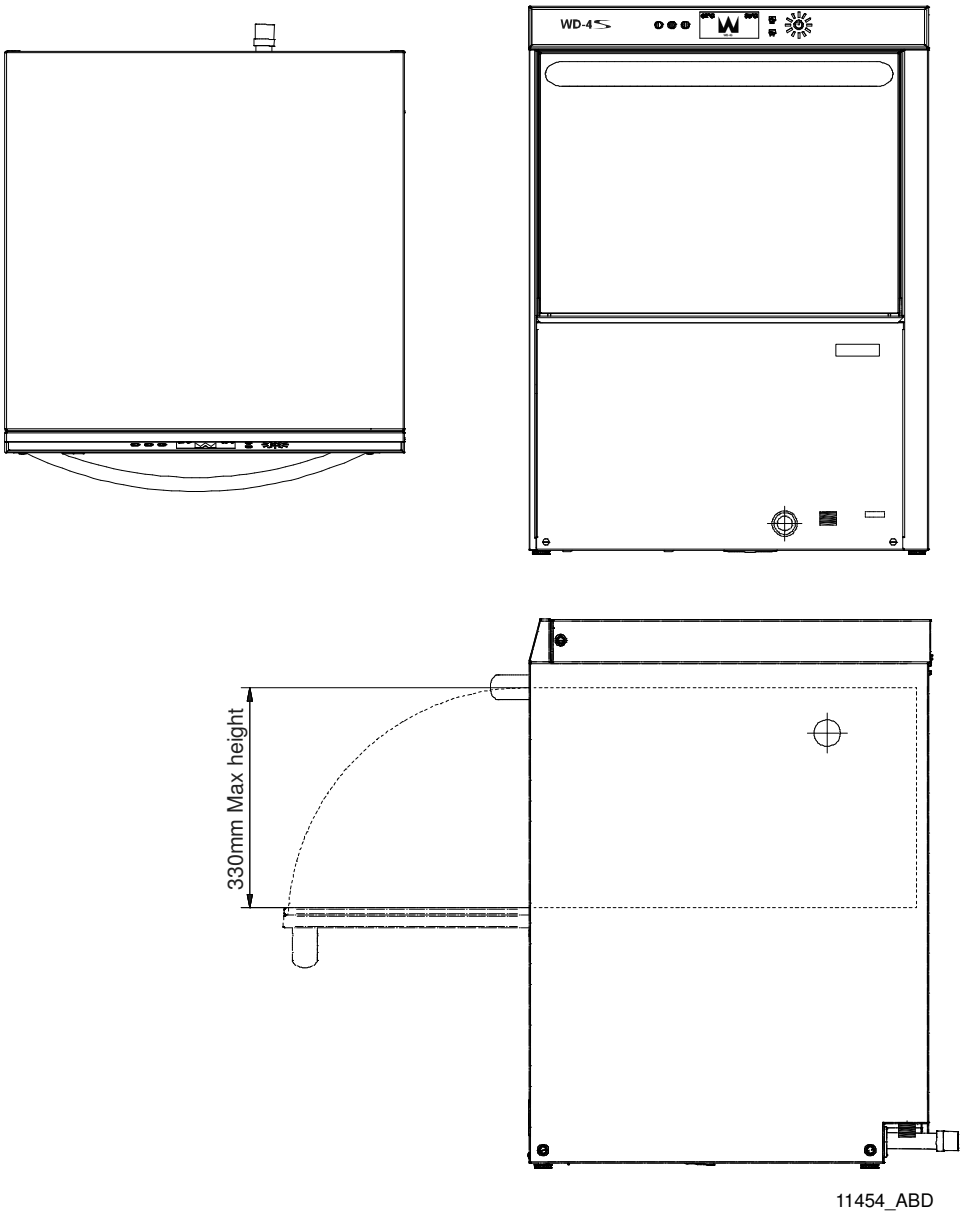
Check that there is sufficient room for the dishwasher at the installation location.

Check that there are correct connections for water, electricity and a waste pipe at the installation location.

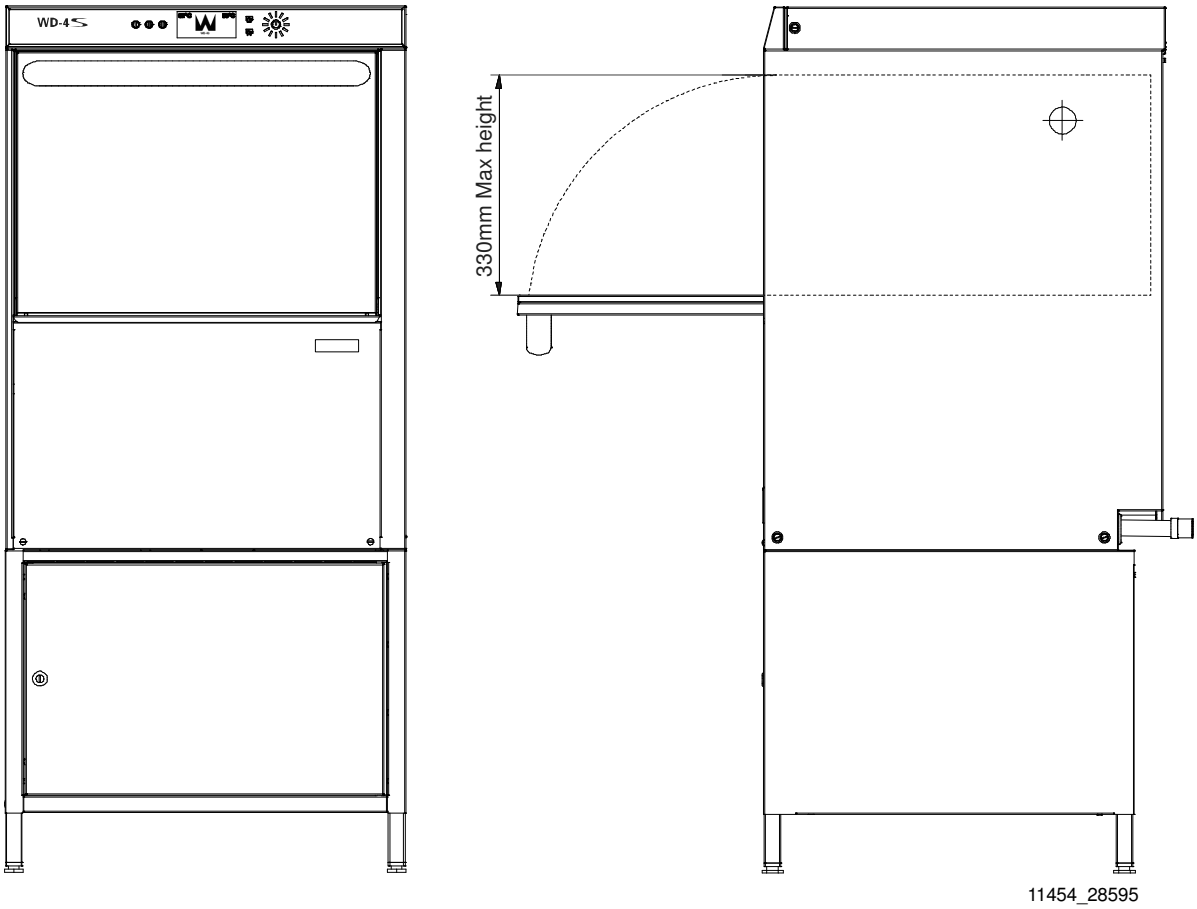
3.4.2 Installation

Check the following points before the machine is placed in position:

- Check that the fuse for the machine at the site is off and non-live.
- Remove the protective plastic on the sides which are to be stood against a wall.
- If holes need to be drilled in the machine, the holes must be fitted with an edge strip or similar protection.
- Put the machine in position and check that it is horizontal using a spirit level. Use the legs to adjust machine height. Once the machine has been filled with water, do another check to make sure the machine is standing level.

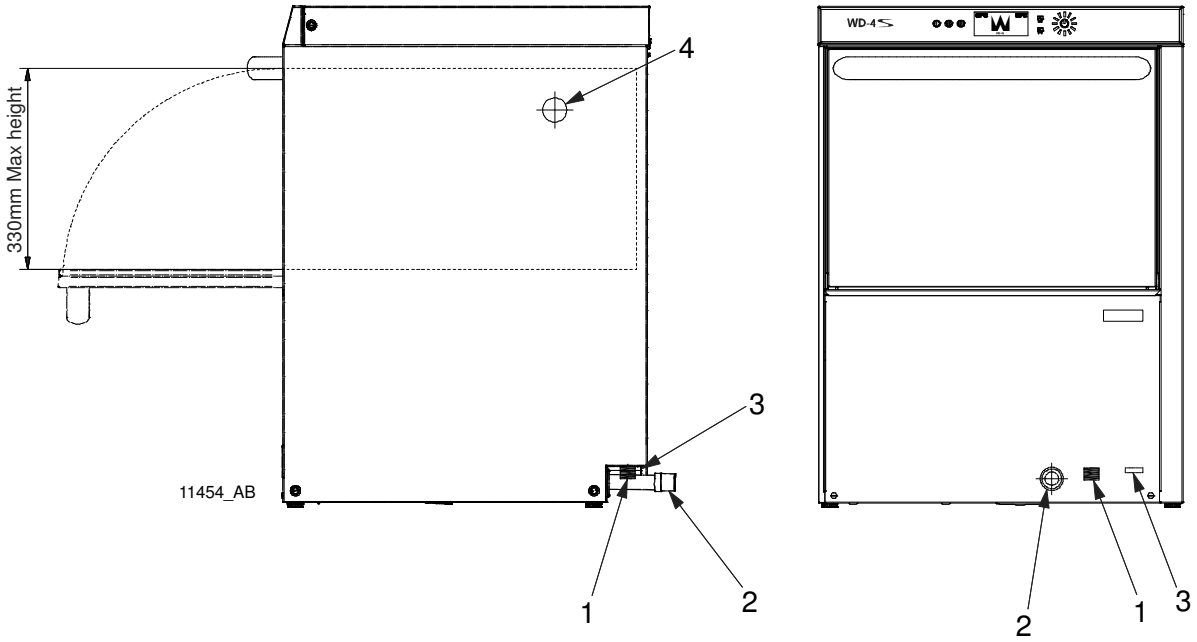


Machine for built-in or freestanding installation.



Machine with stand (option) containing shelves or lockable cabinet.

3.4.3 Connections



Connections on the machine.

1. Water connection, external thread
2. Drain connection, spiral hose
3. Electrical connection
4. Non-return valve / Vacuum valve

Water connection

A shut-off cock must be installed on the incoming pipe.

The water pipe is connected at (1). The machine should be connected with a steel braided and flexible hose. The hose's internal diameter should be at least 9 mm.

The required water flow and pressure can be found in the TECHNICAL SPECIFICATIONS chapter.

Electrical connection

This symbol on a machine part warns of electrical equipment. The machine must be entirely non-live during service, turn off the power at the power switch and if required, the switch should be locked to prevent unintentional operation. The component may only be removed by a qualified electrician. The machine's electronics are sensitive to electrostatic discharge (ESD), which is why a static electricity wristband must be used when handling the electronics at all times.

The machine must be connected to a lockable power switch. This should be placed on the wall well protected against water and steam emissions when opening the door. The machine is supplied with the electrical cable connected (3).

Information about electrical connections is available on the machine's wiring diagram which is provided on delivery. Therefore keep these in the designated plastic pocket, located on the inside of the front panel so they are not destroyed or go missing.

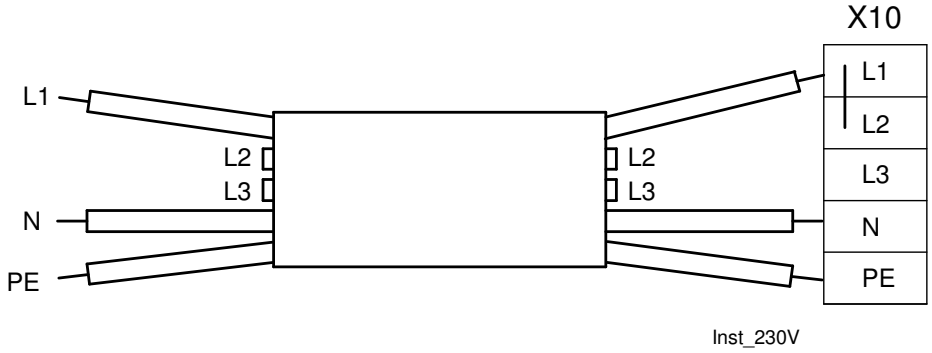
Check the voltage available on site where the machine will be installed. The machine can be supplied with:

1. 400V, 50Hz, 3N~, 10A
2. 230V, 1N~, 50Hz, 16A

If the voltage is according to option **1**, no extra measures are required. The machine has a 10A fuse (see also the machine's wiring diagram).

If the voltage is according to option **2** do the following:

1. The connection cable in the electricity cabinet:
   Remove phases L2 (black) and L3 (grey) from the terminal blocks in X10 in the machine. Cut off the wires and insulate these with end sleeves (enclosed with the machine).
2. Install a clamp (enclosed with the machine) between terminal block L1 and L2 in X10 in the machine.
3. Outgoing end on the connection cable:
   Cut off the wires for the phases L2 (black) and L3 (grey). Insulate these with end sleeves (enclosed with the machine).
4. Connect L1, neutral and earth. The machine has a 16A fuse (see also the machine's wiring diagram).



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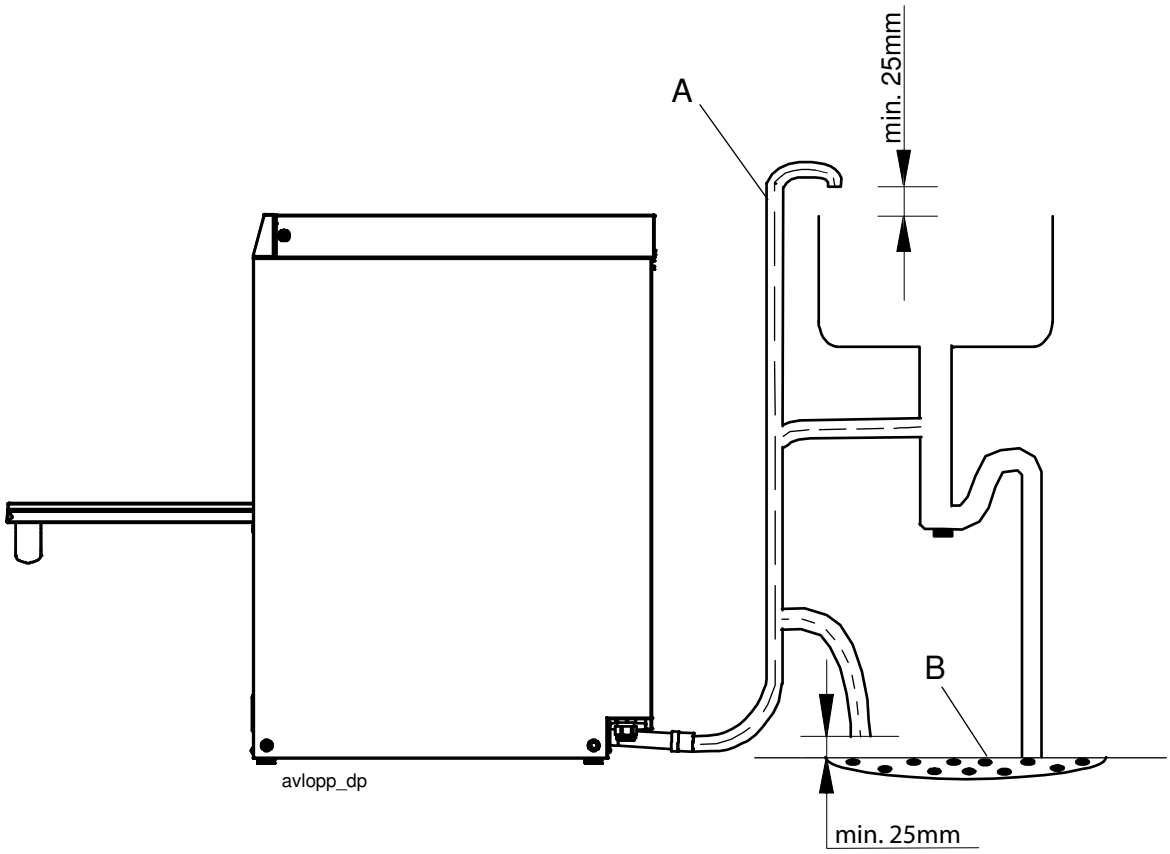
Drain/waste pipe connection

The drain/waste pipe connection consists of a spiral hose that is provided on delivery.

There must be a waste pipe with an effective trap for the machine's waste water and for water used for cleaning. The floor drain capacity can be found in the TECHNICAL SPECIFICATIONS.



A=drain/waste hose
B=floor drain

Connect the drain/waste hose (A) to the floor drain (B) according to one of the options in the illustration.

⚠ Ensure that the drain connection is kept in place by using e.g. cable ties in the designated areas.

3.4.4 Equipment package for the machine

The machine can be equipped with a number of different packages with various contents. Check what your machine is equipped with. The various equipment packages place no specific demand on the installation.

Break tank, EN1717 (option)

If the machine is equipped with a break tank, it also has a booster pump.

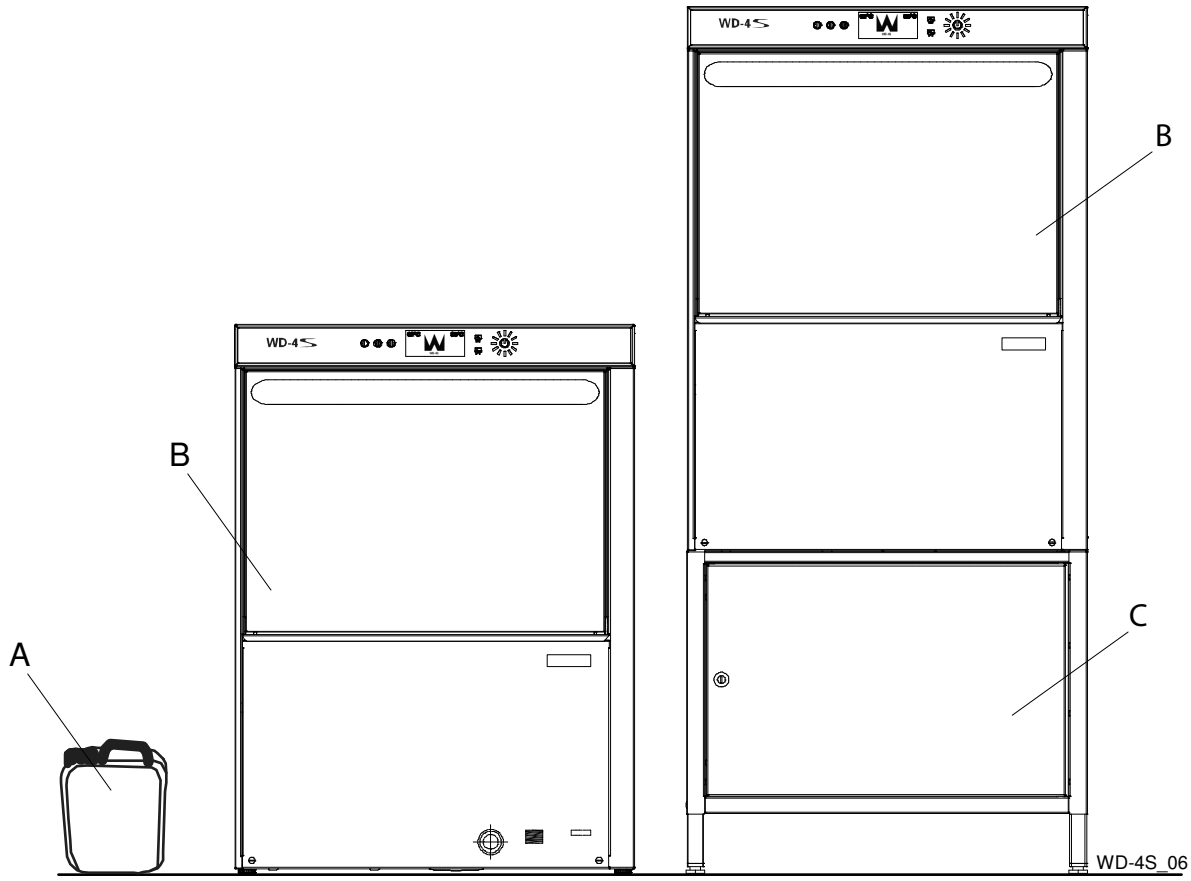
Detergent dosing (option)

Bushing for hoses is located on the rear of the machine.

Setting the detergent dosing is described in the chapter ADJUSTMENT INSTRUCTIONS.

Electrical connections, see wiring diagram.

If liquid detergent is used together with Wexiödisk's detergent pump, the detergent must be placed under the machine's tank level.



The detergent (A) is placed below the door's (B) bottom edge.
If the machine is equipped with stand (C), the detergent can be placed there.

Drying agent dosage (option)

Bushing for hoses is located on the rear of the machine.

Setting the detergent dosing is described in the chapter ADJUSTMENT INSTRUCTIONS.

3.5 Trial operation

Prepare the machine for trial operation using the chapter USING THE DISHWASHER, which describes which measures must be taken to prepare the machine for operation.

3.5.1 Start-up schedule

This should be completed and signed by the customer on start-up.

Machine type:

Machine serial number:

Installation date:

Customer:
Address for visitors:
Postcode + Town/City:
Telephone:
Contact:

Dealer:
Telephone:
Contact:

Installation company:
Telephone:
Contact:

Service company:
Telephone:

Detergent supplier:
Telephone:

End-user signature:

Name (in capitals):

Read the installation and user manuals carefully. Then check the following points:

1. Check:

- Water and drain connections
- That the machine is evenly balanced
- Detergent and drying agent (option)
- Strainers and active filter (option) are in place

2. Filling the machine:

- Turn on the power switch
- Press the ON/OFF button
- Close the door. If it is closed, open and close it again.
- Fill the machine with water according to the chapter USING THE DISH-WASHER

3. Start the machine:

- Check the pump's direction of rotation
  NOTE: If the direction of rotation is wrong, the phase must be inverted on the lockable power switch.
- Empty the machine and refill it
- Check the final rinse flow during filling
  Note: If the flow is correct, the machine is filled and heated (in the basic configuration) for approx. 10 minutes. The flow is regulated by the built-in ball valve and can be controlled if the machine is switched off.

4. Check the setting of the reference values:

- All the reference values have been set to the recommended values on delivery
- Check the temperatures

5. Run a number of washes complete with loads and check that:

- There are no water leaks
- The door switch and the door’s anti-pinch protection system work
- The water flow and pressure are sufficient (see chapter TECHNICAL SPECIFICATIONS)
- The water temperatures are maintained
- The washed items are clean
- The washed items are dried
  Note: The equipment for detergent and drying agent (option) is roughly set at the factory; contact your detergent supplier for a more precise setting.

6. Final check: Empty the machine and turn off the power using the power switch.

- Tighten all connections on the contactor
- Display the guide supplied with the machine

7. Train the dishwashing personnel

3.6 Technical documentation

For correct use and servicing, it is essential that the documentation accompanying the machine is made available to personnel who will be using the machine. The installation and user manual, which describes, amongst other things, how to operate and maintain the machine, should be stored near the machine.

If the service manual is supplied with the machine, it should be given to the service engineer who is responsible for the machine.

If the spare parts manual is supplied with the machine, it should be given to the service engineer who is responsible for the machine.

4. Using the dishwasher

If the machine will not be used for a longer period, the power to the machine should be turned off using the power switch, the water supply turned off and the door should be left ajar.

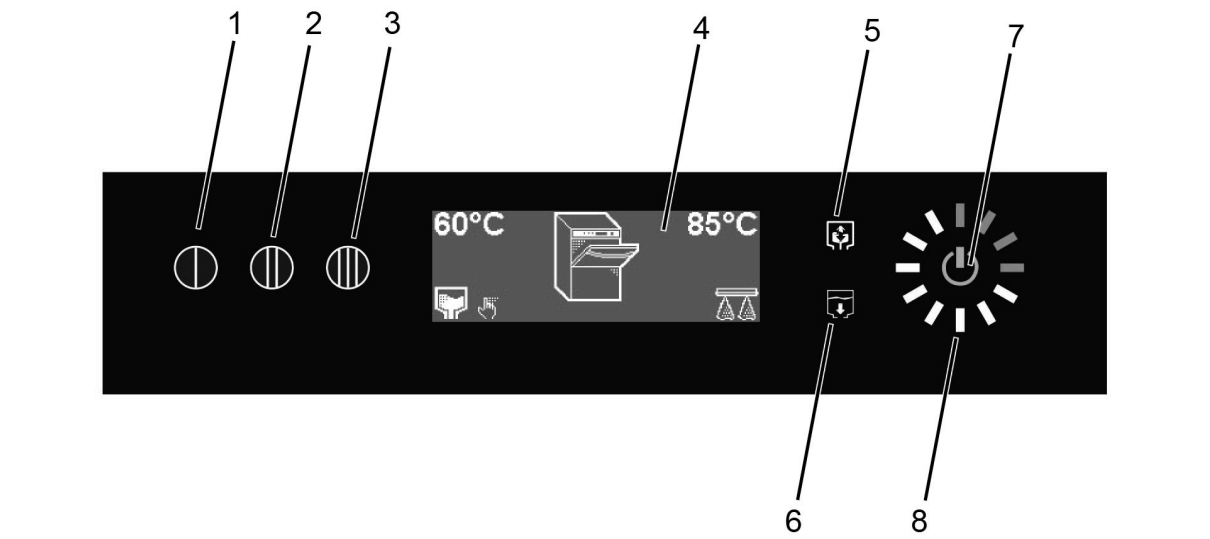
This chapter describes what must be done with the machine:

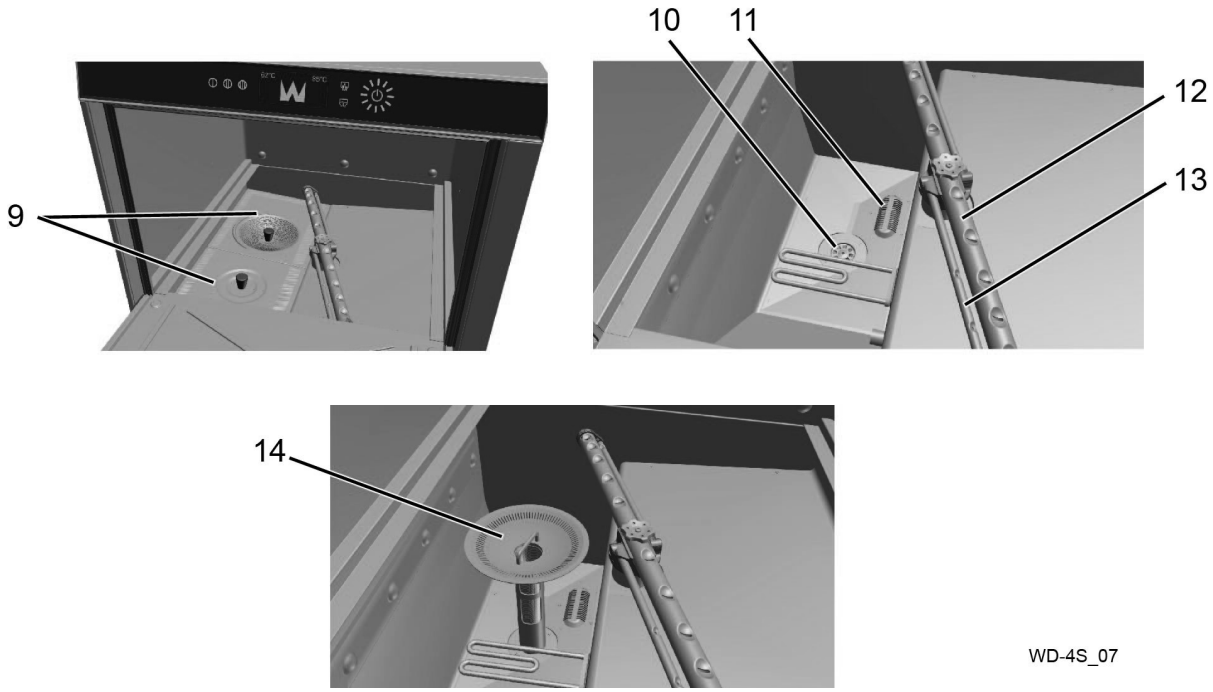
- Before washing
- How washing should be performed
- After completed washing

The use of the machine is dependent on how the machine is equipped.

4.1 Machine layout

4.1.1 Machine layout





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1. Button for programme P1
2. Button for programme P2
3. Button for programme P3
4. Display
5. Button for changing water
6. Button for emptying machine with internal cleaning
7. Button for ON/OFF. Acknowledgement of alarm, green LED for “ready for wash” and faint red LED when the machine is switched off. Flashes yellow in the event of IF alarm and red for Er alarm.
8. Indicator which, among other things, counts down the washing time
9. Tank strainers (2)
10. Drain filter
11. Pump filter
12. Washing arms (2)
13. Rinse pipe (4)

4.1.2 Preparations before filling

Numbers in brackets refer to the pictures in the chapter entitled "The machine’s design".

Check:

- that the power switch is in the ON position.
- that the machine and the removable parts have been cleaned. If not – clean them!
- that the strainers (9) are in place.
- that no dirt is in the washer arms’ (12) or in the rinse pipes’ (13) nozzles
- amount of detergent and drying agent (option)
- that the stopcock for the water to the machine is open

Washing-up liquid must not be used in the machine or for pre-treating items (soaking, pre-washing, etc.). Washing-up liquid causes a build-up of foam, produces poor wash results and can damage the machine.

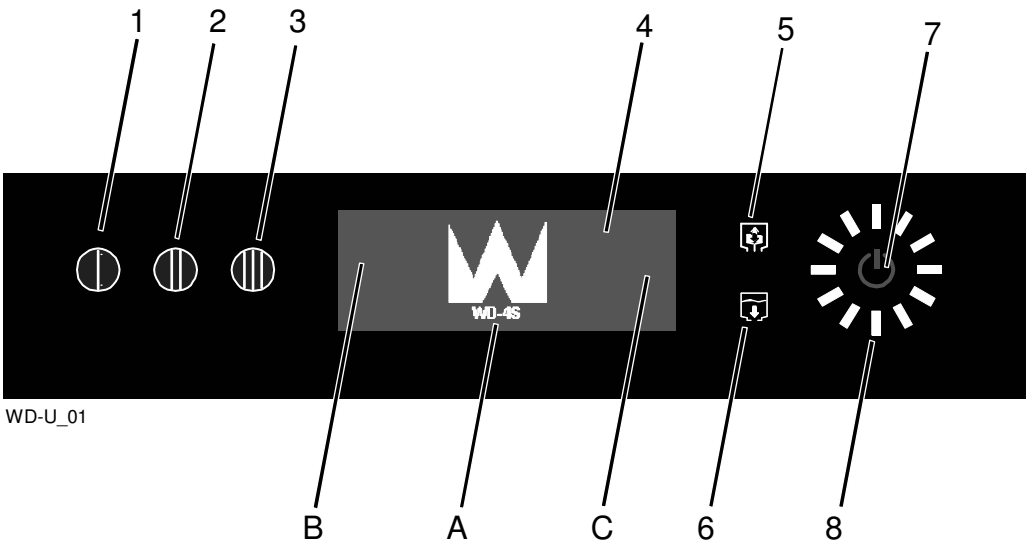
Fit:

- The tank strainers (9).

4.1.3 Filling the machine

Numbers in brackets refer to the pictures in the chapter entitled "The machine's design".

You can see what the machine is doing on the machine's panel.



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The machine's display
A= What the machine is doing and what the machine will do is shown in the middle of the display.
B=The left side of the display shows the "wash" side of the machine.
C=The right side of the display shows the "rinse" side of the machine.

1. Button for programme P1
2. Button for programme P2
3. Button for programme P3
4. Display
5. Button for changing water
6. Button for emptying machine with internal cleaning
7. Button for ON/OFF. Acknowledgement of alarm, green LED for "ready for wash" and faint red LED when the machine is switched off. Flashes yellow in the event of IF alarm and red for Er alarm.
8. Indication with blue LED which among other things counts down the washing time

- Start the machine using the ON/OFF button (7) on the panel.

A1

- Close the door.
- If the following pictures are shown on the display, the door must be opened and closed in order to start filling the machine.

A2

A3

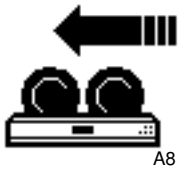
- Filling, heating and detergent mixing starts.

A5

A6

A7

- The indication (8) now flashes gradually anti-clockwise in blue.
- The machine is ready for washing when the following conditions are satisfied.
  * The machine is filled.
  * Desired value (D01) washing tank has reached the correct value (-5°C).
  * Detergent mixing has been performed.
- Now the button (7) lights green, an audible signal is heard and the display shows:


A8

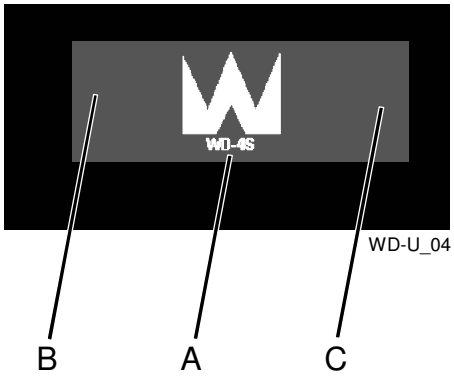
Ready for wash

4.2 Using the machine

Please note the following:

- Avoid contact with the back of the machine as it gets hot during operation.
- Remember that there is a certain risk of tipping, e.g. when a heavier load is placed at the outer edge of the door in the open position.

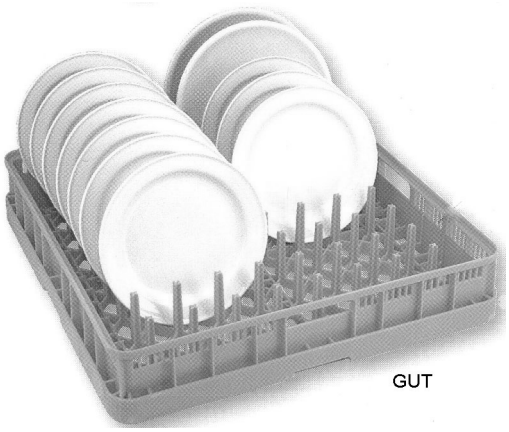
4.2.1 Symbols on the machine's display



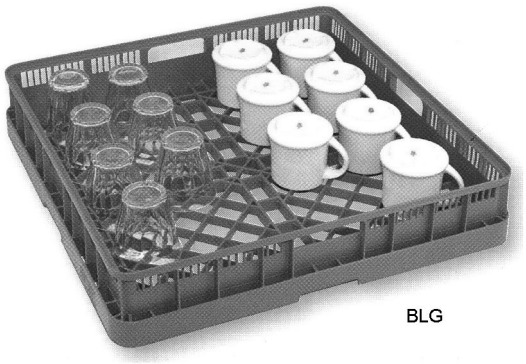
The machine's display
A= What the machine is doing and what the machine will do is shown in the middle of the display.
B=The left side of the display shows the "wash" side of the machine.
C=The right side of the display shows the "rinse" side of the machine.

4.2.2 Positioning of items in baskets

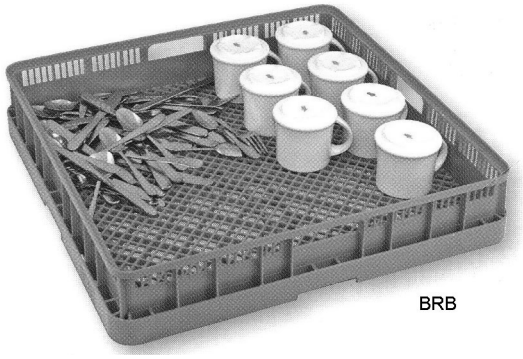
The machine is supplied with washing baskets depending on the equipment level. The washing baskets are used according to the following:



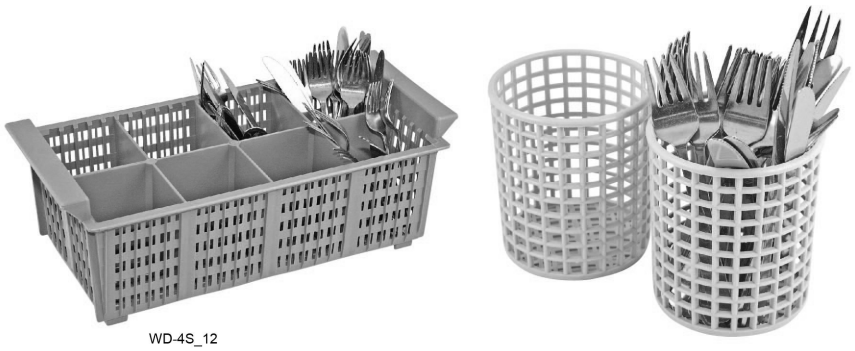
The yellow basket is used for plates, side plates, saucers, etc.



The blue basket is used for glasses and cups and canteens.



The brown basket is used for cutlery during the first wash.



WD-4S_12

Therefore cutlery must be placed in designated baskets before the second wash, the baskets above are located in the blue basket.

4.2.3 Selecting a programme

The control panel has three programme buttons P1 (1), P2 (2) and P3 (3).

- P1=Lightly soiled items (e.g. trays and glassware)

P1

- P2=Normal wash (e.g. plates)

P2

- P3=Heavily soiled items (e.g. cutlery and pots)

P3

The washing temperature and chemical washing time for each programme is set on delivery.

When the door is closed, select a programme. The symbol for the selected programme is lit and the machine starts immediately.

It is possible to set the machine for continuous operation, keep the desired programme button pressed for approx. 5 seconds on the display's middle section until the symbol is shown that indicates that this has been chosen. On the panel's "wash" side the symbol is shown for automatic operation. The programme selection button for the selected programme is lit. When the door is closed, the washing starts again immediately. To return to "normal" operation, press one of the programme selection buttons that are not lit.

auto

4.2.4 Changing washing temperature and washing time (by trained personnel)

The factory setting for the washing temperature is 60°C. Trained personnel can adjust the temperature to between 50 and 70°C.

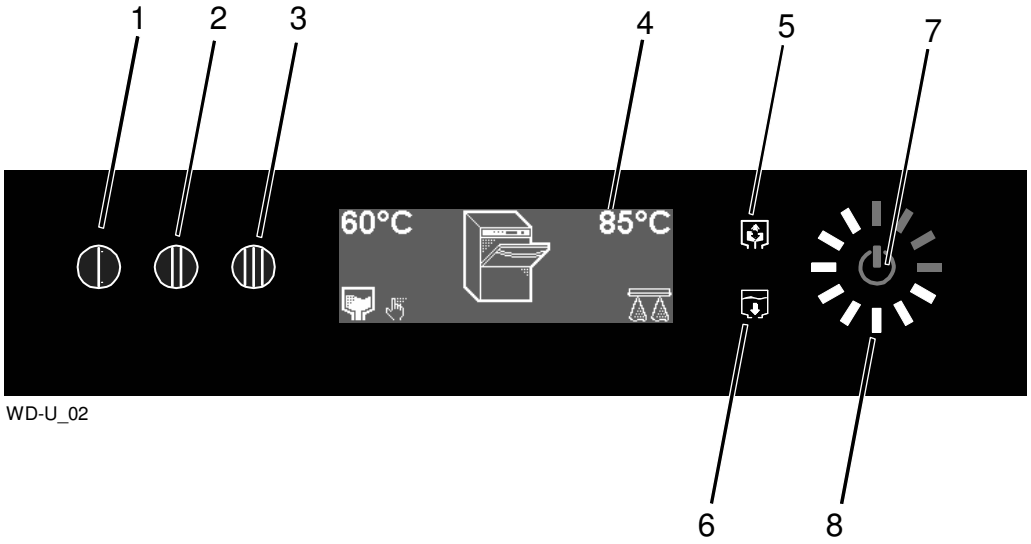
The chemical washing times for each programme are set on delivery to:

- 1.0 min. (programme P1)
- 2.2 min. (programme P2)
- 4.0 min. (programme P3)

The washing times can be adjusted between 0.0 and 9.4 minutes.

4.2.5 Washing

- The items must not be soaked or pre-washed with ordinary washing-up liquid.
- Steel wool must not be used for pre-treating the dishes.
- Make sure that the dishes are in a position where they cannot move out of the washing basket during the washing and rinsing phases.



WD-U_02

The machine's panel

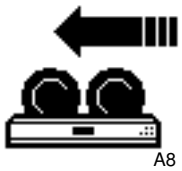
- Remove larger food particles by scraping and rinsing the items using a hand shower. The water in the hand shower must not exceed 40°C. Place the items to be washed in the basket.
- Push the basket into the machine and close the door. For "normal" operation, select programme P1 (1), P2 (2) or P3 (3) depending on type of dishes and the machine will start.

P1-P3

- When "auto" operation has been selected, the machine starts when the door is closed.

- The machine starts to wash with the selected programme and the programme button for the selected programme lights up. The display shows what the machine is doing using different figures. The indication (8) flashes blue gradually clockwise, counting up the washing time.
- Do not open the door before the programme has finished.

- When the machine has finished washing, a signal sounds and the display shows:


A8

- Remove the washing basket and allow the washed items to dry.

Check that the dishes are clean.

For longer periods between washes, the machine should be in the “normal” mode and the door closed. This ensures the temperature in the machine is maintained.

Check the wash result

The dishes should be checked after each wash for:

PROBLEMS	CAUSES & MEASURES
Starch spots Misting Protein residues Detergent residues	• **Scraping:** Important to remove as much food particles as possible before washing. This also means that the water in the machine does not need to be changed as often. Scrape better. • **Detergent and drying agent dosage:** The dosing affects both detergent and drying results of the dishes. The hardness level of the water affects the consumption of detergent. Contact the detergent supplier • **Temperatures:** At incorrect temperatures the dishes will not be clean. Contact a service technician if you need to change the set values. • **Programme selection:** Programme with too short a washing time selected. Choose a programme with a longer washing time. • **Cleaning the machine:** Insufficient cleaning of the machine affects the results of the washing. Ensure better cleaning of the machine. • **Placing dishes in baskets:** Incorrectly placed items can mean that the washing water does not reach the items during washing and rinsing. • **Soaking:** Items with hard dried food. Soak the dishes in water. Do NOT use washing-up liquid.

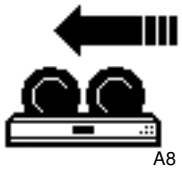
4.2.6 Changing the water

To achieve the best possible washing results, it is important that the water is changed frequently. For normally soiled loads, the water should be changed after around 30 washes. However, always change the water in the event of foam problems in the tank.

If IF09 appears on the display, this indicates that the water should be changed.

IF

- Check that the machine is in standby mode.


A8

- Press (5) to start the water replacement programme.

w_c

- When the tank is empty, the machine is filled again and the door is closed.

4.3 After use – cleaning

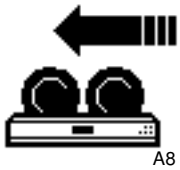
HACCP

HACCP is a preventive inspection system to ensure hygiene requirements are met during the washing process and cleaning of the machine. As a result of its design, the machine meets strict hygiene requirements. Regular, thorough cleaning is also important from a hygiene perspective. A machine that is properly cleaned helps produce a good wash result, reduces the risk of dirt accumulating, increases the service life of the machine and reduces the risk of emergency shutdown.

If the machine will not be used for a longer period, the power to the machine should be turned off using the power switch, the water supply turned off and the the door should be left ajar.

4.3.1 Emptying with internal cleaning

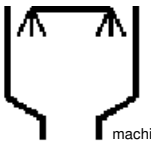
- Check that the machine is in standby mode.


A8

- Open the door.
- Remove the tank strainers (9).
- Close the door.
- Press (6) to start the emptying programme.

drain

- When the tank is empty the internal cleaning of the machine starts immediately if the door is closed.


machine_rinse

- The machine is now switched off automatically, the lighting on ON/OFF (7) fades and an audible signal sounds.

waterflow

When the machine is switched off, the incoming water flow is shown on the panel.

XX
pos

Then the number of washes made after the last start-up is shown.

XXX
poi

The total number of washes made since the machine was used for the first time is now shown.

- Open the door. Check that the washing arms' (12) and the rinse pipes' (13) nozzles are clean and that no objects have fallen and become lodged in the machine.
- Clean the pump strainer (11), drain strainer (10), tank strainers (9).
- Store the cleaned parts in a washing basket.

Leave the door ajar until it will be used next time. This space-saving hygiene position prevents bacterial growth when the machine is not used.

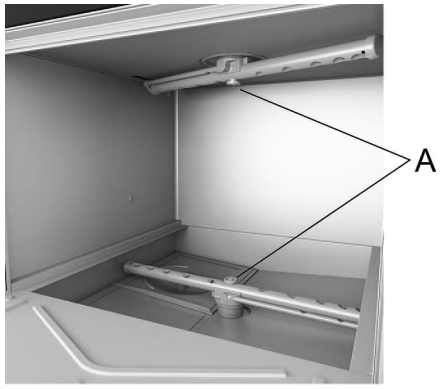
WD-4S_08

The machine with the door ajar.

4.3.2 Cleaning each week

In addition to the daily cleaning measures, follow these instructions:

- Remove the washing arms. Loosen the lock nut (A) in the centre of the washer arm and remove the washer arm. Check and clean the nozzles if necessary. Rinse the washing arms and refit them.



WD-4S_05

A=Lock nut

4.3.3 Cleaning the exterior

Wipe the outside of the machine with a soft, damp cloth.

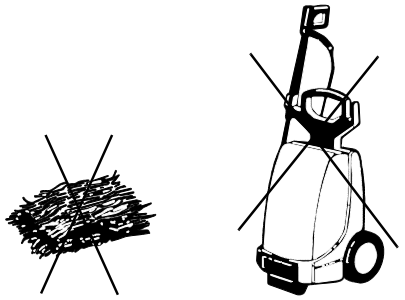
If detergent is used, it must not contain abrasives. Detergents containing abrasives will damage the stainless steel panels.

The machine must not be hosed down externally. Water can enter the machine and damage the control panel and electrical equipment.

4.3.4 Incorrect cleaning methods

NOTE: An incorrect cleaning method may damage the machine. The following points must be observed:

- Do NOT use steel wool as it will cause corrosion to form on the machine.
- If detergent is used, it must not contain abrasives. Detergents containing abrasives will damage the stainless steel panels.
- The machine must not be hosed down externally. Water can enter the machine and damage the control panel and electrical equipment.
- Pressure washers can damage the machine and must NOT be used for cleaning purposes. Never use a pressure washer to clean the floor within 1 metre of the machine. The supplier cannot be held liable for any faults caused by the use of pressure washers on the machine and any such use may invalidate the warranty. There is a risk of splashing even if the floor is hosed down.



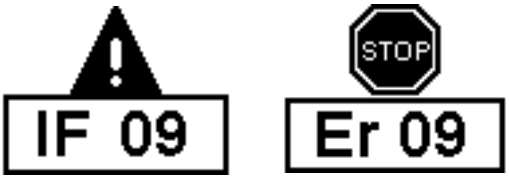
WD4_16

Steel wool and pressure washers must not be used for cleaning.

4.3.5 Operating problems

Error messages

When the machine is operating, various alarms or information messages can appear on the panel's display. There is a distinction between IF and Er alarms. IF alarms can normally be dealt with by the operator. If there is an Er alarm, the service personnel must be called. Some IF alarms that have been dealt with by the operator a few times will eventually change to Er alarms, meaning that the service personnel must be contacted.



IF Er

Each alarm has a number: 01, 02, 03 etc.

The table shows only the alarms that the operator can deal with or temporarily reset using the ON/OFF button (7) on the panel.

The ON/OFF button (7) flashes yellow in the event of IF alarm and red for Er alarm.

CODE	CAUSE	ACTION
IF01/Er01	The filling time has been exceeded without the tank being filled.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
	The water stopcock is closed.	Open the stopcock.
Er02	The tank temperature after filling is less than the nominal value after a set period of time. The machine must reach the correct temperature in order for detergent mixing to take place.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
Er04	The temperature sensor in the booster heater B41 is incorrect.	Contact an authorised service company.
Er05	The temperature sensor in the tank B21 is incorrect.	Contact an authorised service company.
IF06/Er06	Water flow too low during final rinse.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
	The water stopcock is closed.	Open the stopcock. Close the door.
IF09	Alarm for changing the water.	Change the water. The alarm can be reset by pressing ON/OFF on the panel.
Er12	The break tank (option) has not been filled with water.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
Er16	The rinsing temperature is too low before final rinsing. The machine continues to the rinsing phase but with a lower temperature than set when the alarm is displayed.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
Er17	The machine continues to the rinsing phase but with a higher temperature than set when the alarm is displayed.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
IF18	The machine is not emptying as it should.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
IF30	Low water level in the washing tank before the washing programme will start.	Open and close the door. The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
Er80	The pump contact is not installed properly. The soft start does not work.	Contact an authorised service company.
Er95	Alarm from external equipment.	The alarm can be reset by pressing ON/OFF on the panel. If the error recurs, contact an authorised service company.
Er96	The motor safety cut-out for the pump has tripped.	Contact an authorised service company.

Troubleshooting

The following errors can be dealt with by the operator. If the problem persists, contact authorised service personnel.

PROBLEMS	CAUSE	ACTION
No indication on the control panel display when the control button is pressed.	Power switch off.	Switch on the power switch.
The machine does not fill with water.	The incoming water stopcock is closed.	Open the tap.
	The door is open.	Close the door.
	The rinse pipe nozzles are blocked.	Clean the rinse nozzles.
The machine fills slowly.	The rinse pipe nozzles are blocked.	Clean the rinse nozzles.
The machine does not start washing.	The door is open.	Close the door.
	Dishes are blocking the magnet in the door.	Remove the dishes in question.
Noise from the wash pump.	Low water level. Foam in the tank.	Check the level. Change the water.
The machine is not cleaning properly.	The rinse and wash nozzles are clogged with dirt.	Check and clean the nozzles.
	There is too little detergent.	Check the amount of detergent. The hose must be submerged in liquid and the filter in the hose must be clean.
	The water in the tank is too dirty.	Change the water.
	Foam forming in tank.	Check that the washing temperature is not too low and that the correct detergent is being used.
	Programme with too short a washing time selected.	Choose a programme with a longer washing time.
	Dirt has dried on the items to be washed.	Soak the items before washing.
	The items are incorrectly positioned in the baskets.	Use the correct type of washing basket and accessories to ensure that the items are correctly positioned.
The items are tipped over in the baskets.	The items are incorrectly positioned in the baskets.	Put the items in the correct position.
	Light items need washing.	Use a net grid to hold the items.
Items do not dry.	The rinse nozzles are blocked.	Check and clean the nozzles.
	Too little rinsing agent.	Check the amount of rinsing agent. The hose must be submerged in liquid and the filter in the hose must be clean.
	The washed items have been left in the machine.	Remove the washed items once the programme has ended.

When you contact service personnel, you will need to provide the following information:

- Machine type and model.
- Machine serial number and date when the machine was installed.
- A brief description of the problem. Are any fault codes shown in the display?
- What happened/was being done immediately before the fault occurred?

5. Technical specifications

The manufacturer reserves the right to make changes to the technical data.

GENERAL DATA	
Washing pump, M1 (kW)	0.75
Drain pump, M8 (kW)	0.04
Booster pump, M10 (kW) **	0.37
Booster heater, E41 (kW) (400V)	4.2
Booster heater, E41 (kW) (230V)	2.8
Tank heater, E21 (kW)	1.4
Tank volume (litres)	20
Weight, machine in operation (kg)	85
Enclosure class (IP)	44

* option

** option, only in combination with break tank

CAPACITY AND OPERATING DATA	
Total washing time, incl. rinsing time, programme 1 (min) *	1.2
Total washing time, incl. rinsing time, programme 2 (min) *	2.4
Total washing time, incl. rinsing time, programme 3 (min) *	4.2
Capacity, max. (baskets/hour) **	50
Basket size (mm)	500x500
Rinsing water consumption/programme (litres)	2.4
Sound pressure level, L_{PA} (dBA) ***	61
Sound power level L_{WA} (dBA) ***	72

* Factory setting. The washing time can be adjusted.

** Connected to hot water 55–70°C.
The capacity is reduced with a cold water connection.
The capacity is reduced with a condensing unit.

*** in accordance with EN 60 335-2-58, §ZAA.2.8 with instruments that satisfy class 1.
Measurements of the sound pressure level on site are performed in three places 20 cm from the edges of the front at a height of 1.55 m using a microphone.
When measuring sound power level, create an imaginary measurement area consisting of five sides at a distance of 1 m from all edges of the machine.

CONNECTION, MACHINE	
Total connected power (400V 3N~) (kW) *	4.95
Total connected power (230V 1N~) (kW) *	3.55
Main fuse 400 V 3N~(A) *	10
Main fuse 230V 1N~(A) *	16
Connection cable Cu (mm2) **	2.5

* Other voltages on request

** 2 m cable included

WATER, DRAIN AND VENTILATION CONNECTIONS	
Water quality, hardness (°dH)	2-7
Hot water connection 55–70°C (external thread) *	R¾"
Drain connection, hose (ø mm) **	22
Water capacity, pressure (kPa)	180
Water capacity, flow (litres/min.)	17
Heat load room, sensitive (kW)	1.2
Heat load room, latent (kW)	0.5
Heat load room, total (kW)	1.7
Floor drain with functioning trap, capacity (litre/second)	1

* It may take longer to fill the machine if the water connection is colder than <55°C

** 2 m drain hose included

SIZE AND WEIGHT FOR TRANSPORT	
Size (LxWxH) (mm) *	600x600x820
Weight, standard machine (kg) *	60
Packaging weight (kg)	10

* Exclusive packaging